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measuring a temporal evolution of an optical signal from said subset of spatially correlated images; and  
providing a diagnosis based on said temporal evolution.

C2 21. The method of claim 20, wherein said measuring step is performed at predetermined times relative to said dispensing step.

22. The method of claim 20, wherein said tissue is selected from the group consisting of cervical tissue, skin, colorectal tissue, and gastric tissue.

### REMARKS

The remarks presented herein are responsive to the Final Office Action dated February 5, 2003 (Paper No. 13) which issued in the parent case (USSN: 09/739,089).

Claims 1-16 were pending in the application. Claims 1-16 have been cancelled without prejudice and new claims 17-22 have been added. Accordingly, after the amendments presented herein have been entered, claims 17-22 will remain pending. For the Examiner's convenience these claims are set forth herein in Appendix A.

Attached hereto is a marked-up version of the changes made to the specification by the current amendments. The attached page is captioned "Version With Markings to Show Changes Made".

Support for new claims 17-22 may be found throughout the specification, including the originally filed claims. Specifically, support for new claim 17 may be found at, for example, page 13, lines 34-38; page 14, lines 1-6 and page 17, lines 29-37 of the specification. Support for new claim 18 may be found at, for example, page 11, lines 14-16 and page 17, lines 29-37 of the specification. Support for new claim 19 may be found at, for example, page 17, lines 29-37 and page 13, line 33 through page 14, line 6 of the specification. Support for new claim 20 may be found at, for example, page 13, line 33 through page 14, line 6 and Figure 1 of the specification. Support for new claim 21 may be found at, for example, page 17, lines 29-37 and page 13, line 33 through page 14, line 6 of the specification. Support for new claim 22 may be found at, for

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example, page 6, lines 31-32 and page 18, line 2 of the specification.

New claims 17-22 correspond to claims 18, 19, 21, 27, 30 and 31, respectively, of U.S. Publication Number 20020007122A1. The requirements of 35 U.S.C. § 135(b) are met as these claims were pending in co-pending application serial no. 10/346,338 before January 17, 2003 (*i.e.*, before the 1 year date from the date of publication of U.S. Publication Number 20020007122A1).

*No new matter has been added.* Any amendments to and/or cancellation of the claims should in no way be construed as acquiescence to any of the Examiner's rejections and was done solely to expedite the prosecution of the application. Applicant reserves the right to pursue the claims as originally filed in this or a separate application(s).

#### ***Telephonic Interview Of February 11, 2003***

Applicant and his Attorney would like to thank the Examiner and his Supervisor for the courtesy of the telephonic interview of February 11, 2003, during which the foregoing claim amendments and the remarks presented herein were discussed. During the interview, the Examiner indicated that once the present Request for Continued Examination (RCE) was filed, the new claims would be entered and the file transferred to the Interference Practice Specialist (IPS) for Group Art Unit 3765.

#### ***Objection to the Specification***

The Examiner has objected to the specification "for containing minor errors in sentence structure." In particular, the Examiner is of the opinion that

on page 15, line 11 of the specification, an inadvertent syntax error should be corrected (the adjective "remined" must modify a noun). Presently, there is no noun immediately following "remined."

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Applicant respectfully submits that the specification has been amended to correct the errors noted by the Examiner. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdrawn the foregoing objection to the specification.

***Declaration Under 37 C.F.R. §1.131 Filed on November 25, 2002***

With regard to the Declaration under 37 C.F.R. §1.131 filed on November 25, 2002, the Examiner is of the opinion that the declaration is ineffective to overcome U.S. Patent Application Publication No. US 2002/0127735 A1 and U.S. Patent Application Publication No. US 20020007122 A1 (hereinafter "the Kaufman references") because

Applicant has not presented any original exhibits of drawings or records, or photocopies thereof. Accordingly, the Declaration under 37 CFR 1.131 is incomplete and therefore inadequate to establish possession of the claimed invention.

Applicant respectfully submits that, contrary to the Examiner's assertions, the Declaration under 37 C.F.R. §1.131 filed on November 25, 2002 is sufficient to show "prior invention," i.e., reduction to practice of the present invention prior to the effective date of U.S. Patent Application Publication No. US 2002/0127735 A1 and U.S. Patent Application Publication No. US 20020007122 A1 (hereinafter "the Kaufman references") for the following reasons.

As indicated during the telephonic interview of February 11, 2003, "[t]he essential thing to be shown under 37 CFR 1.131 is priority of invention and *this may be done by any satisfactory evidence of the fact.*" M.P.E.P. §715.07 (*Emphasis added*). Applicant's Declaration under 37 C.F.R. §1.131 was accompanied by the Journal of Photochemistry and Photobiology article which contains evidence (in the form of drawings, graphs and disclosure) establishing that Applicant had reduced the present invention to practice prior to the effective date of the Kaufman references.

Pursuant to the Examiner's request (expressed during the telephonic interview of February 11, 2003) Applicant respectfully submits that the drawings and graphs present in the foregoing article are

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photocopies of the original drawings and graphs generated by Dr. Balas when reducing the present invention to practice.

In view of all of the foregoing, Applicant respectfully submits that the Declaration under 37 C.F.R. §1.131 filed on November 25, 2002 is sufficient to show "prior invention," i.e., reduction to practice of the present invention prior to the effective date of the Kaufman references.

***Rejection of Claims 1-5 Under 35 U.S.C. §102(e)***

The Examiner has maintained the rejection of claims 1-5 under 35 U.S.C. §102(e) as being anticipated by Kaufman *et al.* (U.S. Publication No. US 2002/0127735 A1) for the reasons of record.

Applicant respectfully traverses the foregoing rejection on the grounds that the Kaufman *et al.* reference is not available as a 35 U.S.C. §102(e) prior art reference against Applicant's invention. As demonstrated above, the declaration under 37 CFR §1.131 filed on November 25, 2002 is sufficient to show that Applicant had completed the invention as described and claimed in the instant patent application in this country, a NAFTA country, or a WTO country, prior to **December 15, 1999**. Kaufman *et al.* has an effective 35 U.S.C. §102(e) date of **December 15, 1999**. Accordingly, Applicant respectfully submits that the invention disclosed in the present patent application was reduced to practice by the inventor prior to the effective date of Kaufman *et al.* As such, the Kaufman *et al.* reference is not available as prior art against the present invention under 35 U.S.C. §102(e) and, accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection.

***Rejection of Claims 6, 7, 9-13 and 16 Under 35 U.S.C. §102(e)***

The Examiner has maintained the rejection of claims 6, 7, 9-13 and 16 under 35 U.S.C. §102(e) as being anticipated by Richards-Kortum *et al.* for the reasons of record.

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While in no way conceding to the validity of the Examiner's rejection, and solely in the interest of expediting prosecution, Applicant has cancelled claims 1 and 6 and claims depending therefrom, thereby rendering the foregoing rejection moot. Accordingly, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

***Rejection of Claim 8 Under 35 U.S.C. §103(a)***

The Examiner has maintained the rejection of claim 8 under 35 U.S.C. §103(a) as being unpatentable over Richards-Kortum *et al.* in view of Zavislan for the reasons of record.

While in no way conceding to the validity of the Examiner's rejection, and solely in the interest of expediting prosecution, Applicant has cancelled claims 1 and 6 and claims depending therefrom, thereby rendering the foregoing rejection moot. Accordingly, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

***Rejection of Claim 14 and 15 Under 35 U.S.C. §103(a)***

The Examiner has maintained the rejection of claims 14 and 15 under 35 U.S.C. §103(a) as being unpatentable over Richards-Kortum *et al.* for the reasons of record.

While in no way conceding to the validity of the Examiner's rejection, and solely in the interest of expediting prosecution, Applicant has cancelled claims 1 and 6 and claims depending therefrom, thereby rendering the foregoing rejection moot. Accordingly, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

***Declaration Under 37 C.F.R. §1.132 Filed on November 25, 2002***

With respect to the declaration under 37 C.F.R. §1.132 filed on November 25, 2002, the Examiner is of the opinion that

[t]he fact that Mr. Themelis was a graduate student in Dr. Balas' lab who performed technical aspects described in the publication under Dr. Balas' direction and supervision does not in itself establish facts leading to the

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conclusion that Mr. Themelis did not perform acts independent of Dr. Balas, such acts being related to making a determination of whether Mr. Themelis is a co-inventor. In the course of directing and supervising Mr. Themelis, for example, did Dr. Balas personally direct and observe every action of Mr. Themelis? Applicant's Declaration under 37 CFR 1.132 does not provide facts necessary to answer this question. The same comments apply to the other co-authors of the publication.

Applicant respectfully submits that, as indicated during the telephonic interview of February 11, 2003, with respect to *In re Katz* declarations "[a]n uncontradicted "unequivocal statement" from the applicant regarding the subject matter disclosed in an article, patent or published application will be accepted as establishing inventorship. M.P.E.P. §716.10. As pointed out to the Examiner, this type of a 1.132 Declaration takes its name from the famous case of *In Re David Harvey Katz*. In that case, the applicant was trying to establish that he was the sole inventor of the subject matter disclosed in a publication cited by the Examiner under 35 U.S.C. §102. The Applicant filed a 1.132 declaration stating that the co-authors of the publication, Chiorazzi and Eshhar, "*were students working under the direction and supervision of the inventor, Dr. David H. Katz.*" (*Emphasis added*). *In Re David Harvey Katz*, 687 F.2d 450 (CCPA 1982). The court held that the Examiner and the board "should have accepted that Chiorazzi and Eshhar were acting in the capacity indicated, that is, students working under the direction and supervision of the appellant. From such a relationship, joint inventorship cannot be inferred in the face of sworn statements to the contrary." In view of the foregoing, the court concluded that "appellant ha[d] made sufficient showing that the cited publication discloses his invention." *In Re David Harvey Katz*, 687 F.2d 450 (CCPA 1982).

Similarly, in the present case, the declaration under 37 C.F.R. §1.132 filed on November 25, 2002 offers statements of fact describing the contribution of each of the authors to the publication, i.e., that: (a) George C. Themelis was *a graduate student in Dr. Balas' (the inventor's) lab who performed technical aspects described in the publication under Dr. Balas' direction and supervision*; (b) Emmanuel P. Prokopakis and Irene Orfanudaki were *medical residents who performed technical aspects described in the publication at the request and under the direction and supervision of Dr. Balas*; and (c) Eugenios Koumantakis and

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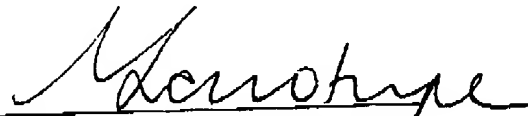
Emmanuel S. Helidonis *are directors at the clinics where the clinical work described in the publication was performed and did not otherwise contribute to the work described in this publication.* From the foregoing stated relationships, joint inventorship cannot be inferred in the face of sworn statements to the contrary. Accordingly, as indicated in the *In Re Katz* case, Applicant has made a sufficient showing that the Journal of Photochemistry and Photobiology publication discloses his invention.

### SUMMARY

In view of the foregoing remarks, reconsideration of the rejections and allowance of all pending claims is respectfully requested.

If a telephone conversation with Applicant's Attorney would expedite prosecution of the above-identified application, the Examiner is urged to call the undersigned at (617) 227-7400.

Respectfully submitted,



Maria Laccotripe Zacharakis, Ph.D.  
Limited Recognition Under 37 C.F.R. §10.9(b)  
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Dated: February 12, 2003

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE****In the specification:**

Please replace the paragraph beginning at page 15, line 8 with the following re-written paragraph:

--Figure 2, illustrates a method for capturing in two spectral bands simultaneously and in any spatial point of the area under analysis, the kinetics of the alterations in the characteristics of the light remitted from the tissue, before and the after the administration of the contrast enhancing agent. The light remitted from the tissue ~~light~~, is collected and focused by the optical imaging module (L) and passes through a beam splitting (BSP) optical element. Thus, two identical images of the tissue (T) are generated, which can be captured by two detectors (D1, D2). In front of the detector, appropriate optical filters (O $\lambda$ 1), (O $\lambda$ 2) can be placed, so that images with different spectral characteristics are captured. Besides beam splitters, optical filters, dichroic mirrors etc, can also be used for splitting the image of the object. The detectors (D1), (D2) are synchronized so that they capture simultaneously the corresponding spectral images of the tissue (Ti $\lambda$ 1), (Ti $\lambda$ 2) and in successive time-intervals, which are stored in the computer's data storage means. Generalizing, multiple spectral images can be captured simultaneously by combining multiple splitting elements, filters and sources.--